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			2167	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/626,340

Applicant(s)

CHU ET AL.

Examiner

KIMBERLY LOVEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5,7-9 and 11-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5,7-9 and 11-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the Appeal Brief filed 22 November 2007. Prosecution is hereby reopened as necessitated by Applicant's arguments.
2. Claims 3-5, 7-9 and 11-33 are currently pending. Claims 1, 2, 6 and 10 have been canceled. This action is made Non-Final.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 24-25** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 24 recites a system including a validating parser, first means and second means. It is noted that the use of the word "system" does not inherently mean that the claim is directed towards a machine. The claimed system can be interpreted as comprising entirely of software per se according to one of ordinary skill in the art. Also, it is noted that the phrases "usable by a computer" and "executing on a computer" does not translate to the system inherently comprising of a computer. Therefore, the claim language fails to provide the necessary hardware required for the claim to fall within the statutory category of a system.

According to MPEP 2106:

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The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Since **claim 25** is dependent on the claim 24, the claim is rejected on the same grounds as claim 24.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5, 7-9, 11-33 rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2005/0149847 to Chandler (hereafter Chandler) in view of US PGPub 2004/0168115 to Bauernschmidt et al (hereafter Bauernschmidt).

Referring to claim 3, the combination of Chandler and Bauernschmidt (hereafter Chandler/Bauernschmidt) discloses the method according to Claim 32, wherein the input document is a structured document [XML document] (Chandler: see [0038], lines 1-2).

Referring to claim 4, Chandler/Bauernschmidt discloses the method according to Claim 3, wherein the structured document is encoded in Extensible Markup Language ("XML") (Chandler: see [0038], lines 1-2).

Referring to claim 5, Chandler/Bauernschmidt discloses the method according to Claim 32, wherein the generated output comprises at least one object representation generated from the input document (Bauernschmidt: see [0043]).

Referring to claim 7, Chandler/Bauernschmidt discloses the method according to Claim 33, wherein the second syntax level is requested by specifying a schema name of a schema to which the generated output must adhere (Chandler: see [0038], lines 15-19).

Referring to claim 8, Chandler/Bauernschmidt discloses the method according to Claim 33, wherein the second syntax level is requested by specifying a schema name of a schema to be used by the validating parser when generating the output (Chandler: see [0038], lines 15-19).

Referring to claim 9, Chandler/Bauernschmidt discloses the method according to Claim 8, wherein the schema name is specified, by the application program, as a feature on an invocation of the validating parser (Chandler: see [0038]).

Referring to claim 11, Chandler/Bauernschmidt discloses the method according to Claim 32, wherein the first syntax level is specified in the syntax of the input document (Chandler: see [0038]).

Referring to claim 12, Chandler/Bauernschmidt discloses the method according to Claim 11, wherein the specification in the syntax of the input document uses a schema location construct in the input document (Chandler: see [0038]).

Referring to claim 13, Chandler discloses a computer-implemented method of casting objects, comprising steps of :

validating syntax elements of an input, using a validating parser, according to a first syntax level while generating output objects [the entire document is validated] (see [0037]).

However, Chandler fails to explicitly disclose the further limitation of generating output objects from the input using the validating parser, according to a second syntax level, wherein the generating further comprises suppressing, by the validating parser, at least one of the validated syntax elements from the generated output objects in order that the generated output objects will be valid according to the second syntax level and providing the generated output objects, by the validating parser, for use by an application program. Bauernschmidt

discloses generating output objects [the entire document is validated], from the input using the validating parser, according to a second syntax level, wherein the generating further comprises suppressing, by the validating parser, at least one of the validated syntax elements from the generated output objects in order that the generated output objects will be valid according to the second syntax level [a new XML document is created for the filtered subset; since the filtered subset does not contain all of the original elements, the first syntax is not valid according to the second syntax level] (see [0034]); and providing the generated output objects, by the validating parser, for use by an application program (see [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the method of Bauernschmidt for limiting the elements output to the application to limit the elements output by the parser of Chandler. One would have been motivated to do so in order to increase efficiency by providing only necessary elements to the application thereby decreasing the amount of information received by the application.

Referring to claim 14, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the second syntax level is a less-restrictive version of the first syntax level [first syntax level contains all elements and second syntax level, which has been filtered contains a subset of the elements; fewer elements makes the second syntax less restrictive] (Bauernschmidt: see [0034]).

Referring to claim 15, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the first syntax level is a more-restrictive

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definition of the second syntax level [first syntax level contains all elements and second syntax level, which has been filtered contains a subset of the elements; fewer elements makes the second syntax less restrictive] (Bauernschmidt: see [0034]).

Referring to claim 16, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the first syntax level is an extension of the second syntax level (Bauernschmidt: see [0034]).

Referring to claim 17, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the first syntax level represents an extension of the second syntax level (Bauernschmidt: see [0034]).

Referring to claim 18, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the first syntax level and the second syntax level are defined using schemas (Chandler: see [0038]).

Referring to claim 19, Chandler/Bauernschmidt discloses the method according to Claim 18, wherein the schema that defines the first syntax level is an extension of the schema that defines the second syntax level (Chandler: see [0028]-[0036]).

Referring to claim 20, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the first syntax level represents a plurality of extensions to the second syntax level (Chandler: see [0028]-[0036]).

Referring to claim 21, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the generated output objects adhere to a schema that defines the second syntax level (Bauernschmidt: see [0034]).

Referring to claim 22, Chandler/Bauernschmidt discloses the method according to Claim 13, wherein the input adheres to an extended schema that defines the first syntax level (Chandler: see [0028]-[0036]).

Referring to claim 23, Chandler/Bauernschmidt discloses the method according to Claim 22, wherein the generated output objects adhere to a base schema that is extended by the extended schema (Chandler: see [0028]-[0036]).

Referring to claim 24, Chandler discloses a system for applying abstraction to object markup definitions, comprising:

a validating parser usable by a computer (see [0037]);

first means for using the validating parser, executing on a computer, to validate syntax elements specified in an input document expressed as an object markup definition, wherein the validation is performed according to a first syntax level [the entire document is validated] (see [0037]).

However, Chandler fails to explicitly disclose the further limitation of second means for using the validating parser, executing on the computer, to apply abstraction to the object markup definition when generating, from the validated syntax elements, output syntax for at least one output object for use by an application program, responsive to the first means, wherein the applying of the abstraction further comprises suppressing, by the validating parser from the generated output syntax, at least one of the validated syntax elements, in order that the generated output syntax of each generated output object will be valid according to a second syntax level and wherein each of the suppressed syntax elements is valid according to the first syntax level but is not valid according to a

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second syntax level. Bauernschmidt discloses second means for using the validating parser, executing on the computer, to apply abstraction to the object markup definition when generating, from the validated syntax elements, output syntax for at least one output object for use by an application program, responsive to the first means, wherein the applying of the abstraction further comprises suppressing, by the validating parser from the generated output syntax, at least one of the validated syntax elements, in order that the generated output syntax of each generated output object will be valid according to a second syntax level and wherein each of the suppressed syntax elements is valid according to the first syntax level but is not valid according to a second syntax level [a new XML document is created for the filtered subset; since the filtered subset does not contain all of the original elements, the first syntax is not valid according to the second syntax level] (see [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the method of Bauernschmidt for limiting the elements output to the application to limit the elements output by the parser of Chandler. One would have been motivated to do so in order to increase efficiency by providing only necessary elements to the application thereby decreasing the amount of information received by the application.

Referring to claim 25, Chandler/Bauernschmidt discloses the system according to Claim 24, wherein the second syntax level is requested by the application program and wherein the application program then consumes at least

one of the at least one generated output objects [set converted based on a user parameter] (Bauernschmidt: see [0034], lines 14-25).

Referring to claim 26, Chandler discloses a computer program product for parsing of input, the computer program product embodied on one or more computer-readable media and comprising:

computer-readable program code for validating , by a parser, syntax elements of an input document according to a first schema when parsing syntax of the input document [the entire document is validated] (see [0037]).

However, Chandler fails to explicitly disclose the further limitation of computer-readable program code for suppressing, by the parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the suppressed syntax elements is valid according to the first schema but is not valid according to a second schema for which the output is generated. Bauernschmidt discloses computer-readable program code for suppressing, by the parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the suppressed syntax elements is valid according to the first schema but is not valid according to a second schema for which the output is generated [a new XML document is created for the filtered subset; since the filtered subset does not contain all of the original elements, the first syntax is not valid according to the second syntax level] (see [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the method of Bauernschmidt for limiting the elements

output to the application to limit the elements output by the parser of Chandler. One would have been motivated to do so in order to increase efficiency by providing only necessary elements to the application thereby decreasing the amount of information received by the application.

Referring to claim 27, Chandler/Bauernschmidt discloses the computer program product according to Claim 26, wherein the first schema specifies a first syntax that is a more-restrictive version of a second syntax specified by the second schema (Bauernschmidt: see [0034]).

Referring to claim 28, Chandler/Bauernschmidt discloses the computer program product according to Claim 26, wherein the first schema is defined as an extension of the second schema (Bauernschmidt: see [0034]).

Referring to claim 29, Chandler/Bauernschmidt discloses the computer program product according to Claim 26, wherein the first schema is defined as an extension of some intermediate schema that extends the second schema (Chandler: see [0038]).

Referring to claim 30, Chandler/Bauernschmidt discloses the computer program product according to Claim 26, wherein the second schema is a base schema upon which one or more extensions are based, and wherein the first schema is one of the extensions and is based either directly on the base schema or on an intermediate schema that extends the base schema (Chandler: see [0038]).

Referring to claim 31, Chandler discloses a computer-implemented method of providing validation and parsing for clients, comprising steps of:

providing a validating parser that enables a client to dynamically select a syntax abstraction level for use when generating output from the validating parser (see [0037]);

obtaining an input document to be validated and parsed for the client (see [0038], lines 1-3); and

validating syntax elements of the input document with the provided validating parser, wherein the validation is performed according to a first syntax level to which the syntax elements of the input document are to adhere (see [0037]).

Chandler fails to explicitly disclose the further limitations of suppressing at least one of the validated syntax elements when generating output from the input document with the provided validating parser, for use by the client, wherein: the generated output has syntax that conforms to the syntax abstraction level that has been dynamically selected by the client; the syntax abstraction level is a less-restrictive version of the first syntax level; and each of the suppressed syntax elements is valid according to the first syntax level but is not valid according to the syntax abstraction level. Bauernschmidt discloses suppressing at least one of the validated syntax elements when generating output from the input document with the provided validating parser, for use by the client, wherein: the generated output has syntax that conforms to the syntax abstraction level that has been dynamically selected by the client; the syntax abstraction level is a less-restrictive version of the first syntax level; and each of the suppressed syntax elements is valid according to the first syntax level but is not valid

according to the syntax abstraction level [a new XML document is created for the filtered subset; since the filtered subset does not contain all of the original elements, the first syntax level is not valid according to the second] (see [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the method of Bauernschmidt for limiting the elements output to the application to limit the elements output by the parser of Chandler. One would have been motivated to do so in order to increase efficiency by providing only necessary elements to the application thereby decreasing the amount of information received by the application.

Referring to claim 32, Chandler discloses a computer-implemented method of applying abstraction by a validating parser, comprising steps of:

using, by a validating parser, a first syntax level for validating syntax elements when parsing syntax of an input document [the entire document is validated] (see [0037]).

However, Chandler fails to explicitly disclose the further limitation of omitting, by the validating parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the omitted syntax elements is valid according to the first syntax level but is not valid according to a second syntax level for which the output is generated. Bauernschmidt discloses omitting, by the validating parser, at least one of the validated syntax elements when generating output from the parsed syntax of the input document, wherein each of the omitted syntax elements is valid according to the first syntax level but is not valid according to a second syntax level for

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which the output is generated [a new XML document is created for the filtered subset; since the filtered subset does not contain all of the original elements, the first syntax is not valid according to the second syntax level] (see [0034]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the method of Bauernschmidt for limiting the elements output to the application to limit the elements output by the parser of Chandler. One would have been motivated to do so in order to increase efficiency by providing only necessary elements to the application thereby decreasing the amount of information received by the application.

Referring to claim 33, Chandler/Bauernschmidt discloses the method according to Claim 32, wherein the second syntax level is requested, to the validating parser, by an application program for which the output is generated [set converted based on a user parameter] (Bauernschmidt: see [0034], lines 14-25).

Conclusion

In view of the Appeal Brief filed on 22 November 2007, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kimberly Lovel
Examiner
Art Unit 2167

kml
17 February 2008


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